

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

SOLAS OLED LTD.

Plaintiff,

v.

SAMSUNG DISPLAY CO., LTD.,  
SAMSUNG ELECTRONICS CO., LTD.,  
AND SAMSUNG ELECTRONICS  
AMERICA, INC.,

Defendants.

Civil Action No. 2:19-cv-00152-JRG



**ORAL HEARING REQUESTED**

**DEFENDANTS' RULE 50(b) MOTION FOR JUDGMENT AS A MATTER OF LAW  
OF NON-INFRINGEMENT OF THE ASSERTED CLAIMS OF THE '338 PATENT**

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## I. INTRODUCTION

Defendants Samsung Display Co., Ltd. (“SDC”), Samsung Electronics Co., Ltd. (“SEC”), and Samsung Electronics America, Inc. (“SEA”) (collectively, “Defendants”) respectfully move under Federal Rule of Civil Procedure 50(b) for judgment as a matter of law (“JMOL”) of non-infringement of the asserted claims of U.S. Patent No. 7,446,338 (“the ’338 patent”). Defendants also respectfully request an oral hearing on their motion.

## II. LEGAL STANDARD

Judgment as a matter of law under Rule 50 is proper when “a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue.” *Abraham v. Alpha Chi Omega*, 708 F.3d 614, 620 (5th Cir. 2013). Jury findings must be supported by “substantial evidence.” *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1363 (Fed. Cir. 2004). “Substantial evidence is more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” *Id.* Accordingly, judgment as a matter of law is warranted “[i]f . . . the facts and inferences point so strongly and overwhelmingly in favor of one party that the Court believes that [a] reasonable [jury] could not arrive at a contrary verdict.” *Med. Care Am., Inc. v. Nat’l Union Fire Ins. Co.*, 341 F.3d 415, 420 (5th Cir. 2003).

Conclusory expert testimony does not qualify as substantial evidence. *See Virnetx, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1333 (Fed. Cir. 2014) (applying Fifth Circuit law). In resolving a Rule 50 motion, the court must “excise inadmissible evidence,” including unreliable expert testimony. *Hodges v. Mack Trucks, Inc.*, 474 F.3d 188, 193 (5th Cir. 2006). Inferences that “would be ‘mere speculation and conjecture’” are also “not sufficient to support a jury’s verdict.” *Guile v. United States*, 422 F.3d 221, 226 (5th Cir. 2005). In other words, “[w]hen an expert opinion is not supported by sufficient facts to validate it in the eyes of the law, or when indisputable record facts

contradict or otherwise render the opinion unreasonable, it cannot support a jury's verdict." *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 242 (1993).

**III. DEFENDANTS ARE ENTITLED TO JUDGMENT AS A MATTER OF LAW BECAUSE SOLAS FAILED TO PRESENT SUFFICIENT EVIDENCE TO SUPPORT A FINDING OF INFRINGEMENT.**

**A. Solas failed to present sufficient evidence to support a finding of direct infringement.**

Where "no reasonable fact finder could determine that the accused devices meet every limitation of the properly construed claims," JMOL of non-infringement is warranted. *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 980 (Fed. Cir. 1999). Here, there was no substantial evidence that the accused devices meet necessary limitations of the asserted claims.

Solas asserted infringement of dependent claims 5 and 9 of the '338 patent, each of which depends from claim 1. Among other limitations, claim 1 requires:

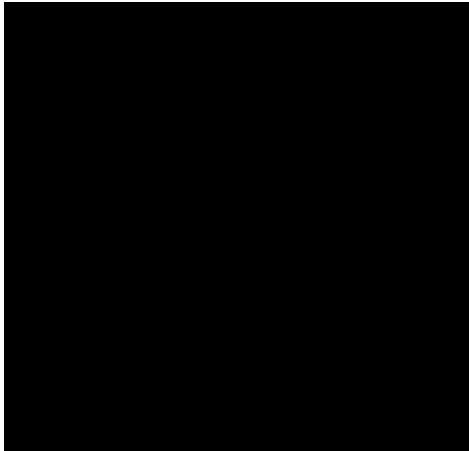
a plurality of interconnections which are formed to project from a surface of the transistor array substrate, and which are arrayed in parallel to each other [and] [...]

[a] plurality of transistors for each pixel [that] include [1] a driving transistor, one of the source and the drain of which is connected to the pixel electrode, [2] a switch transistor which makes a write current flow between the drain and the source of the driving transistor, and [3] a holding transistor which holds a voltage between the gate and source of the driving transistor in a light emission period.

DTX-2-0027 ('338 patent) at 24:19–38.

[REDACTED]

[REDACTED]



[REDACTED]

Solas failed to present substantial evidence that the '338 Accused Products meet the following limitations.

1. **“a driving transistor, one of the source and the drain of which is connected to the pixel electrode”**

The evidence established that none of the '338 Accused Products meet the limitation of “a driving transistor, one of the source and the drain of which is connected to the pixel electrode.” [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] the '338 Accused Products do not satisfy the plain meaning of the claim limitation requiring “a driving transistor, one of the source and the drain of which is connected to the pixel electrode.”

But Mr. Credelle’s infringement theory rests on improper claim interpretation that flouts the plain meaning of the claim language and is also inconsistent with other disclosures in the patent. *See Smith & Nephew, Inc. v. Arthrex, Inc.*, 453 Fed. App’x 977, 980–81 (Fed. Cir. 2011) (reversing denial of motion for JMOL of non-infringement where “[Plaintiff’s] theory of infringement is inconsistent with the plain language of [the asserted claim]” and therefore “there is no evidence of record supporting the jury’s verdict”).



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Not only does such a reading defy the plain meaning of the claim language, it would be an improper claim construction. *See WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1350 (Fed. Cir. 1999) (“The plain meaning of ‘selecting one of said . . . numbers’ is selecting a single number, not a combination of numbers.”).

[REDACTED]

[REDACTED]

[REDACTED]

Dependent claim 2 recites “[a] panel according to claim 1” including “a feed interconnection *connected to the other of the source and the drain* of at least one of the driving transistors.” DTX-2-0027 (’338 patent) at 24:39–41 (emphasis added). Claim 2 thus confirms the plain meaning of claim 1 that *one*, not both, of the source or drain of the driving transistor is connected to the pixel electrode, and in claim 2 the *other* is connected to a feed interconnection. The plain claim language means that the connection must be direct, and cannot merely be an indirect “electrical” connection, because both the source and drain of the driving transistor are equally “electrically connected” to the pixel electrode.

See *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1311–12 (Fed. Cir. 2005) (“To infringe an

apparatus claim, the device must meet all of the structural limitations.”); *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1329 (Fed. Cir. 2010) (“the patent owner must show evidence of specific instances of direct infringement” unless claims are directed to capability); *Ball Aerosol & Specialty Container, Inc. v. Limited Brands, Inc.*, 555 F.3d 984, 994–95 (Fed. Cir. 2009) (infringement of an apparatus claim can only occur when the accused product is in the claimed configuration, not merely “reasonably capable” of being put into the claimed configuration). Likewise, there could be no indirect infringement by SDC or SEC, because Solas’s theory of induced infringement was based on importation and sale of the accused devices by SEA, *see, e.g.*, 3/1/2021 Tr. (Public) 206:8–12 (Solas Opening); 3/1/2021 Tr. (Public) 161:5–7 (Jury Instructions); 3/8/2021 Tr. (Public) 864:12–16 (Jury Instructions), which were not infringing activities.

[REDACTED]

[REDACTED]

[REDACTED] the jury lacked an adequate evidentiary basis to conclude that any of the ’338 Accused Products meet this limitation.

**2. “a switch transistor which makes a write current flow between the drain and the source of the driving transistor”**

The Court construed “write current” to mean “pull-out current.” *See* Dkt. 99 (CC Mem. and Order) at 23. The evidence conclusively established that the ’338 Accused Products do not use a “pull-out current” and therefore do not meet the claim limitation of “a switch transistor which makes a write current flow between the drain and the source of the driving transistor.”

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Solas

adopted the same position in IPR proceedings for the '338 patent. *See, e.g.*, 10/2/2020 Patent Owner Resp. (Paper 18) at 5 (emphasis added) (“*The write current . . . can be called a ‘pull out’ current since that current flows out of the pixel circuit.*”).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Brooke, 509 U.S. at 242; see also *Novartis Pharm. Corp. v. Abbott Labs.*, 375 F.3d 1328, 1339 (Fed. Cir. 2004) (affirming JMOL of noninfringement after “reject[ing] [plaintiff’s] theory of infringement” as “inconsistent with the claim construction”).

As Defendants explained during the *Markman* hearing in this case, the difference in the current flow path for the claimed invention of the '338 patent versus the '338 Accused Products arises because the claimed invention and the '338 Accused Products use different systems for controlling the circuit, which operate in fundamentally different manners. *See, e.g.*, 4/7/2021 *Markman* Tr. (Public) 47:10–20. [REDACTED]

The term “write current” in claim 1 of the ’338 patent refers to a feature of current-controlled systems that is not found in voltage-controlled systems. Solas itself made this very point in IPR proceedings on the ’338 patent. *See, e.g.*, 4/15/2020 Patent Owner Prelim. Resp. (Paper 6) at 2 (explaining “the parties have *agreed* on at least one thing for this term [‘write current’]: it requires pointing to a specific current that agree [sic] that ‘sets the brightness of an individual pixel in the display rather than relying on a voltage signal’” and that “a display that relies on a voltage signal,” *i.e.*, a voltage-controlled display, cannot meet this requirement) (emphases in original);<sup>2</sup> 10/2/2020 Patent Owner Resp. (Paper 18) at 25 (“A POSITA would have understood the differences between current-written circuits and voltage-written circuits . . .”); 11/16/2020 Flasck

<sup>2</sup> See also *id.* at 7–8 (citing Defendants’ showing that “use of the claimed ‘write current’ to set the brightness of each individual pixel ‘distinguishes the ’338 Patent’s ‘current control’ method of setting pixel brightness from alternative ‘voltage control’ systems”); *id.* at 17 (“[T]he . . . ‘current’ Petitioners point to in Kobayashi *cannot ever be a write current*. Rather, it plainly is a ‘voltage control’ system according to Samsung’s own description, which . . . emphasizes that the ‘write current’ cannot be satisfied in such systems....”) (emphasis in original).

Dep. Tr. (Ex. 1025) at 33:9–11 (“I believe that . . . the ’338 [patent] is directed to current-written OLED devices.”); *see also id.* at 32:4–33:11. And as Defendants noted during claim construction in this case, the ’338 patent’s specification identified problems with the voltage-control method that the claimed invention’s current-control method purportedly avoids. *See, e.g.*, 4/7/2021 *Markman* Tr. (Public) 47:10–20; DTX-2-0002 (’338 patent), col. 1–2.

[REDACTED]

Thus, the jury lacked an adequate evidentiary basis to conclude that any of the ’338 Accused Products use a “pull-out current.”

**3. “a holding transistor which holds a voltage between the gate and source of the driving transistor in a light emission period”**

The evidence conclusively established that the ’338 Accused Products do not meet this limitation, which specifically requires that the holding transistor hold a voltage between the gate and *source* of the driving transistor. [REDACTED]

[REDACTED]



[REDACTED] There is no evidentiary basis to support a finding that the '338 Accused Products meet the explicit requirements of this limitation.

**4. “a plurality of interconnections which are formed to project from a surface of the transistor array substrate”**

The evidence at trial conclusively established that six of the products accused of infringing the '338 patent—the Galaxy Note 8, Galaxy Note 9, Galaxy S8, Galaxy S8 Plus, Galaxy S9, and Galaxy S9 Plus—also lack the claimed “interconnections which are formed to project from a surface of the transistor array substrate.” [REDACTED]

[REDACTED] Indeed, Solas presented no evidence as to this limitation with respect to the Galaxy Note 8, Galaxy Note 9, Galaxy S8 Plus, Galaxy S9, and Galaxy S9 Plus.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



Solas's own representative and former chief technical officer, Dr. O'Riordan, made clear that the plain meaning of the "interconnections" in the '338 patent is "material that's used to deliver electrical signal to an element of the pixel circuit." 3/4/2021 Tr. (Public) 556:14-25 (Dr. O'Riordan) ("Q. What's your understanding of an interconnection in OLED or LED design? A. Well, there are a number of ways of interpreting *what an interconnection is. In the context of the '338 patent, it's a layer of material that's used to deliver electrical signal to an element of the pixel circuit.*") (emphasis added).

In fact, Solas failed to supply proof of infringement of this limitation for the Galaxy Note 3, Galaxy Note 4, Galaxy Note Edge, Galaxy Note 5, Galaxy S4, and Galaxy S5. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Mr. Credelle never offered the product-by-product analysis necessary for the jury to evaluate whether the other accused devices met this limitation. Mr. Credelle's opinions that the Galaxy Note 3, Galaxy Note 4, Galaxy Note Edge, Galaxy Note 5, Galaxy S4, and Galaxy S5 have the claimed "interconnections" are therefore "mere speculation and conjecture" that are "not sufficient to support a jury's verdict." *Guile*, 422 F.3d at 225. [REDACTED]

[REDACTED]

[REDACTED]

**B. Solas failed to present sufficient evidence to support a finding of indirect infringement.**

Solas had the burden to establish any alleged indirect infringement of the asserted claims by a preponderance of the evidence.

The evidence at trial cannot support a finding that any Defendant indirectly infringed any asserted claim. First, as discussed above, Solas did not present evidence that could support a finding of direct infringement by SEA. Yet Solas's only theory of inducement was based on purported direct infringement by SEA. *See* 3/1/2021 Tr. (Public) 161:5–7 (Jury Instructions), 3/8/2021 Tr. (Public) 864:12–16 (Jury Instructions). Second, Solas presented no opinion or testimony about "indirect" or "induced" infringement at trial (never even using those terms before the jury). During argument on Rule 50(a) JMOL motions, the only basis counsel for Solas

identified for these claims was the assertion, without elaboration, that “Solas has also shown indirect infringement of the asserted claims through at least Mr. Kwak’s and Mr. Kim’s and Mr. Repice’s admissions that Samsung is a global company and a global leader in the smartphones and sells its products worldwide.” 3/5/2021 Tr. (Public) 792:13–18. However, these alleged admissions could not provide the requisite predicate for finding that either SDC or SEC “actively induced infringement” by SEA.

Third, SDC and SEC could be liable for active inducement of infringement only if they “took an affirmative act to encourage infringement [by SEA] *with the knowledge that the induced acts constitute patent infringement.*” *Info-Hold, Inc. v. Muzak LLC*, 783 F.3d 1365, 1372 (Fed. Cir. 2015) (emphasis added). This would require “actual knowledge or willful blindness,” the latter “a high standard, requiring that the alleged inducer (1) subjectively believe that there is a high probability that a fact exists and (2) take deliberate actions to avoid learning of that fact.” *Id.* at 1372–73. Yet there is no evidence to support a finding of the required intent to cause infringement. It is insufficient that SDC and SEC were aware that SEA was selling accused devices in the United States, and even that they intended for SEA to do so. Solas failed to present evidence of knowledge of, and specific intent to cause, infringement. Further, no evidence was presented that any Defendant had pre-suit knowledge of the ’338 patent—let alone a belief that there was a high probability that SEA was infringing the ’338 patent.

For these reasons, there was no legally sufficient evidentiary basis for the jury to find that any Defendant induced infringement of the ’338 patent.

#### **IV. CONCLUSION**

For the foregoing reasons, Defendants respectfully request that the Court enter JMOL of non-infringement of the asserted claims of the ’338 patent for all accused products.

Dated: April 19, 2021

Respectfully submitted,

/s/ Melissa R. Smith

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of the foregoing document via the Court's CM/ECF system per Local Rule CV-5(a)(3) this April 19, 2021.

/s/ Melissa R. Smith  
Melissa R. Smith

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]